DOCUMENT RESUME

ED 181 871 IR 007 664

AUTHOR Lortie, Dan C.
TITLE Networks and Organizational Rationality in American Public Schools.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C. School Capacity for Problem Solving Group. Network Development Div.
PUB DATE Mar 77
NOTE 39p.; Paper prepared for the Network Development Staff, School Capacity for Problem Solving Group, National Institute of Education (Washington, DC, March 16-17, 1977); For related documents, see IR 007 659, IR 007 663, IR 007 665-666, IR 007 671, IR 007 689, and IR 007 691

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Diffusion; Educational Innovation; Informal Organization; Interaction; *Networks; Principals; *Problem Solving; *Public Schools; School Systems; Superintendent Role; Teacher Role

ABSTRACT

This paper addresses the question, "What potentialities lie in the use of 'informal networks' for the improvement of problem-solving in American public schools?" The first section consists of a close examination of the charge with consideration of networking and problem-solving capacity. In the second section, some of the constraints that affect work with conventional school districts are examined; in the third, constraints which influence a "horizontal" approach across school districts--lateral relationships among superintendents, principals, and teachers--are discussed. The fourth section is organized around suggestions on how networking might further local efforts to diversify practice. The paper concludes with a discussion of the need for ideological diversity and suggestions on ways in which research can inform NIE (National Institute of Education) intervention. (Author/JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED181871

IR

NETWORKS AND ORGANIZATIONAL RATIONALITY IN AMERICAN PUBLIC SCHOOLS

DAN C. LORTIE

THE UNIVERSITY OF CHICAGO

IR007664

The question raised in this paper is posed by the National Institute of Education: "What potentialities lie," agency officials ask, "in the use of 'informal networks' for the improvement of problem-solving in American public schools?"[1] Institute personnel, concerned with reports on the low effectiveness of federal intervention over the last decade, have turned their attention to a new, vigorous body of theory and research called networking. We are asked to consider whether action based on that approach can serve the School Capacity for Problem Solving (SCPS) group in its efforts to increase the effectiveness of public schools.

This paper is an attempt to answer that question. The first section consists of a close examination of the charge with consideration of networking and problem-solving capacity. In the second section, I shall examine some of the constraints which affect work with conventional school districts and in the third, constraints which influence a "horizontal" approach across school districts. The fourth section is organized around suggestions on how networking might further local efforts to diversify practice. The paper concludes with two short sections, one on the need for ideological diversity and the other on ways in which research can inform NIE intervention.

---

[1]I wish to thank Terry Ferguson and Kent Peterson for their able assistance in reviewing the research literature on a variety of topics related to this paper.

1. High Aspirations and Uncertain Technique

The parameters of our discussion are set by a general goal--the improvement of problem-solving in American schools--and a technique of intervention called "networking." It makes sense, then, to examine both the goal and the proposed means to get some estimate of the proposed line of activity. I shall begin with the goal and then consider networking as a strategy.

Charles Thompson's memorandum of January 19, 1977 includes what he terms a rough definition of problem-solving capacity. Recognizing his misgivings about any simple definition of the idea, his statement can serve as an indication of current thinking in the SCPS group and as a beginning point for this treatment. I quote:

> . . . the problem solving capacity of a school (is) its ability as an organization to engage its clients and incumbents in specifying the kind of education they want the school to provide, in assessing the school's performance against this standard, and in engaging in deliberate efforts to narrow the gap between the ideal and the actual by finding or inventing improvements.

Any definition creates problems, and I shall assume that two which flow from a literal interpretation of the definition are not intended. First, one assumes that the reference to "a school" is rhetorical, for many problems of schooling which interest NIE require school board and superintendent action while others (e.g. the shift from conventional to "open classroom" teaching) are located primarily in individual classrooms. I do not assume, moreover, that NIE is uninterested in problems which cannot be attacked wholly at the school or school district level; one thinks, for example, of questions of staff preparation which involve state departments, colleges and others.

What the definition does indicate is a preference for a rational model of school (rhetorically intended) operation which departs markedly

from current realities. Goal-setting in American schools has always been complicated by both political and sociological constraints of a most severe type; divergence in interests and basic disagreements about socialization values make it extremely difficult for local school boards, even in seemingly homogeneous communities, to find and act on specific educational goals, leading them to develop vacuous and safe statements of purpose. (Dahlke, 1958) The specification of objectives, moreover, is doubly constrained, first by "external requirements" imposed by states, colleges, employers, etc. and by cleavages within the typical school system. It is, in fact, extremely difficult to make definite statements on how specific goals are established and carried out in our public schools; it seems safest to say, given our limited knowledge on this important point, that educational goals are set at several levels of the school district hierarchy.

Boards work within the framework of state and other constraints but are themselves characterized, in many instances, by relative instability due to high turnover. In conjunction with the superintendent, they set conditions within which principals and teachers work; officially, the powers of the school board are very broad, for school districts do not formalize, as do many universities, the distinct powers of board members, administrators and teachers into a tripartite division of governance. Yet it is also known that principals are significant figures in the specification of actual goals on a day-to-day basis and with recent demands for greater local autonomy, some work with local groups of citizens to stress particular sets of goals. It is also clear that teachers have significant informal discretion in many aspects of their work; given the peculiar concern of school boards and superintendents, it is likely that teacher discretion is greatest in those parts of their work

which bear most directly on instruction. (Lortie, 1969) Nor is it at all certain that decisions made at higher levels translate directly, in linear fashion, into decisions at lower levels of the hierarchy; managerial controls, for example, are very different from those found in business and industry. The point I wish to emphasize is that we should avoid the usual bureaucratic assumption, in thinking about schools, that superordinate decisions result in a clear, linear specification of subordinate decisions. It is not arguable, of course, that superordinate decisions constrain lower ones; it is debatable, however, that they dictate choices within the resulting range. There is, in short, considerable slippage as we move from board level discussion to the conduct of instruction in the classroom. Given the importance in schooling of interactions between teachers and students, the usual tendency to elevate "policy" and denigrate "implementation" can be misleading in efforts to understand how schools work.

There is another sense in which a rational model of goal-setting and assessment in a given school district, school or classroom is problematic. Public schools are the prototypical instance of James Thompson's hard-to-assess organization--ends are uncrystallized and knowledge of means-ends relationships are perceived, by key actors, as unknown. (Thompson, 1967) Efficiency and effectiveness criteria can best be applied to peripheral activities such as bus routes and cafeteria operations--they are extremely difficult to employ in assessing progress toward multiple and vague instructional objectives. Nor is there conflict only at the manifest level; one can find conflicting tendencies between latent functions (important in as well-established and widespread institution as the public schools) and between them and more explicit

objectives. My own research on teachers reveals that they experience deep and broad uncertainty in how to assess their work; if such uncertainty prevails in the limited domain of the individual classroom, it is evident that it cannot be otherwise in the organization-at-large. (Lortie, 1975)

The definition of problem-solving also implies the capacity for concerted action by all those engaged in school activities, clients as well as incumbents. We have already seen, without much detail, that those employed in schools occupy what Weick calls loosely-coupled roles; it is not certain that were consensus on goals achieved or means agreed upon that the varieties of persons working in schools could effectively combine their efforts toward specified goals. (Weick, 1976) When one adds the proviso that "clients" be involved, the complexity increases; who, for example, is the client? One can make some sort of case, in answering that question, for students, parents, local and national industry and other employers, the national interest, colleges and universities, etc. Even if we decide to eliminate all claimants save local households, the record of integration between families and schools is not likely to encourage high hopes for their successful co-participation other than in highly specified and even ritualized ways. Schools are much closer to Cohen and March, in short, than to March and Simon; "organized anarchy" is probably a better depiction than any of the usual models of rationality held up as theoretical condensations of organizational reality. (March and Simon, 1958) (Cohen and March, 1974)

The reader may be surprised to learn that despite these considerable reservations, I do not argue against the desirability of greater rationality in school affairs; in my teaching and writing, I persist in the

hope that educationists can be interested in moving in that direction. Yet we must be aware that current practices are so far removed from that model that to cite it as an immediate, working goal is to risk Utopianism; it may impose expectations which are so large that any set of intervention strategies will fail to measure up. To give networking a fair chance, we should consider a less exalted goal, a more modest and realistic target in our action.

As Charles Kadushin points out in the paper distributed to participants, conceptualization of social reality has roots in a variety of disciplines and is emerging as one of the more interesting alternatives to the dominant sociological frameworks of the last few decades. (Also, see Mullins, 1973) Others are better equipped to discuss its intellectual origins, current directions and promise for our sociological understanding, but there is one respect in which such considerations bear on our charge. Namely, how does the expressed NIE interest in networking relate to a theoretical or research-based orientation?

From the materials provided us, it seems that NIE is introducing a somewhat distinct conception when it refers to networking. In its usage, the verb seems to refer not to the basic activity undertaken by individuals "out there" but rather to a strategy of intervention in which government fosters new linkages to achieve particular educational goals. When sociologists and other social scientists study networks, they are examining the composite activities of individual scientists, job seekers, underworld figures, migrants, etc. as they go about their daily concerns; the patterns of interactions developed by such persons can be conceptualized as social circles or networks, and analysis is revealing that they have particular properties which set them apart

from other kinds of groupings studied by sociologists. As far as I have been able to determine, however, this kind of inquiry has not yet been developed as a basis for systematic reform or developed as an intervention technique by activists. (There was such a flurry of activity some years back with Moreno's work on sociograms, etc., but I do not believe it is active at the present time.) We could say, of course, that some sales promoters use network ideas, such as in the case of Tupperware parties or insurance companies which hire salesmen in the expectation that they will quit once they have used up family and other relationships. But the main efforts in network analysis today are not undertaken with social prescription as the major focus of interest--it is theory and research directed toward traditional scientific goals of understanding and prediction. Such knowledge is, of course, often useful to activists, but it is somewhat confusing, I think, for us to think of networking-as-intervention and networking-as-science as the same thing.

If we examine NIE's conception of networking as an educational strategy, it is difficult to say whether it is something new or something old. If the emphasis is on efforts to create linkages which approximate the "better features of informal networks," ("Networks for Mutual Assistance and Collaborative Development"), it sounds new--and very difficult to do. Informal networks grow out of the decisions and behavior of hundreds and thousands of persons--they have a spontaneous, unconstructed quality, or, at least, a limited degree of intentionality. I personally find it hard to see how anyone, acting from the outside, can create such systems, but it may be possible. But if we emphasize the novel features of this approach, we can, for certain, say that the technique is as yet undeveloped, and therefore marked by high uncertainty.

We can choose, however, the see networking-as-intervention as a new label for activity with a history. Is it not related, in some ways, to the associations which joined together in the nineteenth century to make up what historians now call the Common School Crusade? In our own century, voluntary associations, from the Progressive Education Association to the Council for Basic Education, have sought to alter the educational environment and, in the view of those supporting them, improve the quality of decision-making in American schools.

How is one, in short, to differentiate between voluntary associations and the kinds of networks NIE has in mind? NIE intends, one imagines, to aid persons who share common purposes in education who are sufficiently well-organized and legally constituted to receive and expend funds. I find it difficult to visualize any such arrangement (the clearinghouse for teacher's centers is a case in point) which does not come so close to voluntary associationism that the distinction is moot. Voluntary associations can, of course, vary in their degree of formalization.

Although it is possible, therefore, that networking-as-intervention is not a novel approach to educational change, it does not appear that this puts it into the category of a well-developed type of social action. Although the search was necessarily brief, I have been unable to find any considerable literature on previous efforts by "donors" to use associational tactics to further change; despite many years of such activity by large foundations (e.g. the Carnegie Foundation, for example, has been deeply involved in building new professions such as nursing and social work and even, at one time, supported the American Sociological Society), there is no summary of that experience which can inform today's practice.

It is entirely possible, and I recommend consideration of that possibility to NIE, that skillful historical research could uncover lessons from the past. But as matters now stand, it seems that considerable experience has been lost and is not in the form which permits us to say that the employment of voluntary associations to bring about change is a well-developed technique of social intervention.

What NIE is asking us to consider, therefore, is the possibility of using a little understood technique, be it new or old, to undertake a task of enormous proportions--the rationalization of American educational practice. Furthermore, it is obvious that any kind of associational approach holds risks as well as advantages, for the educational and social landscape is cluttered with institutions which, once innovative, are today bastions of the status quo. This is not to say that carefully planned use of linkage strategies is doomed to failure--I believe, as I will suggest later--that they can prove useful for certain ends. But I think it is important for us to recognize from the outset that networking is marked by the same uncertainties which characterize so many approaches to social engineering.

To summarize, then, we have argued that the image of problem-solving projected by NIE is somewhat exalted, given the current realities of American public schools. The proposed means, moreover, is subject to considerable uncertainty. It is, therefore, not at all sure that the use of networking strategies will produce the desired goal of significantly improved decision-making. If desirable goals are to be attained, it is clear that our level of aspiration will have to be realistic and our strategic notions carefully refined.

2. Networking-as-intervention and the Local School District.

The school district remains a critical unit in the American system of public schools and, as such, should not be overlooked in any discussion of linkage strategies. States, of course, have the advantage of being fewer in number; it is easier to think of action with fifty units than with 16,000 school districts. (Classrooms, of course, run over two million and individual schools into the tens of thousands.) But despite their large numbers, school districts remain extremely powerful in their capacity to stop, if not advance, changes in educational practice. Without the cooperation of school authorities, monies will not be budgeted for particular purposes nor sanction given to undertake alternative types of educational practice. It is useful, therefore, to spend more time on the organizational characteristics of such districts and on the question of vertical integration which was touched upon in the first section of this paper.

The question I wish to address is the following: What can be expected from any strategy of networking which rests principally on linking school districts through individual representatives? Is there viability, in short, in the consortium approach advocated so strenuously by Washington officials during the Sixties? More specifically, if, as we have asserted, policy is formulated at different levels of the school district hierarchy, can representatives be found to participate in new, ore effective linkages across school systems?

Parsons has corrected the excessively harmonious view in Weber's conception of bureaucracy by pointing to the breaks which exist between the levels of institutional, managerial and technical action in organizations. (Parsons, 1958) In public schools, we find important

cleavages between the contributions and orientations of those who serve as members of the board-superintendent group ("central office"), the principals and the classroom teachers. This source of segmentation within school districts has important implications for efforts to combine them toward common action and to diffuse new practices across district lines. We can get an initial, rough picture of this problem by brief reviews of the development of the three levels, the methods of control available to those at the apex of the structure and the kinds of task interdependence which prevail within school systems.

It is easy to forget that throughout most of their history, schools in America consisted of single-room affairs operated by one person--the teacher. From the seventeenth through much of the nineteenth century, a committee of local citizens hired a teacher to run the school which served either a rural or small town clientele--the division-of-labor was exceptionally simple. It changed, of course, with urbanization; gradually, the multiple-room school emerged with graded classrooms and, before long, a principal teacher who supervised the activities of other teachers and handled other non-classroom matters. The superintendency developed in the latter part of the nineteenth century and, in the cities, was associated in large part with the "taking over" of local schools (sometimes called "ward schools") by the native-born elites of the day. (Cronin, 1973) Much else happened, of course, as high schools became standard and new specialities emerged. But the basic structure we are familiar with today was in place some seventy or so years ago; a board of education, elected or appointed, selected a superintendent (usually for a stipulated period) to oversee principals who, in turn, supervised teachers.

Modern school systems can be conceptualized as aggregations of separate school buildings which are, in turn, aggregations of separate classrooms; the central office serves to set overall policy, acquire and disperse funds and to oversee the entire operation. It has been necessary for such central offices, however, to avoid too rigid an internal system of interdependence given its need, at all times, to match space and teachers with a fluctuating clientele; given the requirement to serve all children of appropriate age who apply for admission, demographic realities control entry to schools and demands on its structure. "Structural looseness" has permitted the addition or subtraction of classrooms and even schools as demand required; it has, however, put a premium on the easy interchangeability of teachers, students and space. Administrative requirements, in short, have emphasized internal segmentation rather than high internal interdependence; as long as the teacher's job, for example, could be assumed by a new person without the need to relate closely to others, flexibility could be maintained. The mutual isolation of the parts, furthermore, was not challenged, as it has been in business, by complex technologies based on man-machine systems with their own internal logic. Teachers taught students long before there existed a long administrative chain between them and the board of education and they can continue to do so today; their work is not the sub-division of an entrepreneur's original activity but the basic activity which has characterized schools from the outset.

The system of managerial control found in school districts differs, as we would expect from the foregoing, from what we find in more highly integrated "systems" of work. The central office must rely for personnel on specialized preparation institutions and then selects

and places teachers, administrators and specialists in particular positions. It organizes instruction into grades and subjects and issues curriculum guidelines for each; it cannot, however, depend upon an external system of work processing (e.g. an assembly line or other pre-programmed sequence of interdependent tasks) to control its employees to anything like the extent found elsewhere. Principals are dispersed into their own separate buildings within which individual teachers assume responsibility for an entire year of instruction either for a given class or for a given subject with several classes. Specialists such as librarians, counsellors and nurses each have their own space and domain. The physical distribution of persons into separate spaces, coupled with relatively low task interdependence on a day-to-day basis, results in considerable discretionary power throughout the entire system. In fact, such a loosely-constructed organization requires that individuals exercise discretion within a general and even vague set of stated goals and procedures.

The particular responsibilities of persons at each level dominate their days and shape their views of school affairs. Board members, already limited by the fact that their engagement is part-time, give their attention to whatever matters require official action for the entire system; they normally have little direct contact with the inner life of schools and classrooms. The superintendent's time and energies are usually spread over a wide array of external as well as internal affairs; surveys of time usage among superintendents reveal that they spend little time on strictly instructional issues. (New York State Regents, 1966) Principals inhabit their own, demanding world of myriad

detail, relationships with parents, overall building supervision, etc. without, from available reports, any considerable involvement in the direct supervision of instruction. (McDowell, 1954; Trask, 1964) Summerfield's work indicates that they may differ widely within the same district in their level of activity, their educational emphases and their dependence on the central office. (Summerfield, 1971) Research on teachers reveals that teaching tasks exercise a powerful centripetal force drawing teachers into their classrooms; few develop much interest in school-wide activities. (Lortie, 1975) We know that they differ as well in what they consider most important--studies of elementary teachers' us of instructional time shows that even within the same school, wide variations exist in the time allotted various subjects. Solitude and variation, then, are as characteristic of schools as joint effort and standardized practice; they intertwine to give schools their peculiarly loose texture.

I hope enough has been said about the low vertical integration that marks the typical school system to support one important consequence for any planning based on the networking approach. The effort to link school districts through individuals is <u>not</u> likely to achieve linkage of the entities; at best, linkage through individuals will combine a sub-part of one system with another. The sway of the superintendent is limited; thus any combination of superintendents will unite an important but partial sub-system of the whole. It is also evident that the same limitation, only more severely exercised, will occur if principals and teachers are the representatives. For linkage to occur between any two systems, therefore, it will be necessary to bring together not only representatives of the central office but a number of principals and a

larger number of teachers; in short, given the segmented structure of school districts, mutual interpenetration costs are high.

It may well be that the low effectivess of efforts to diffuse innovation and the less-than-stellar record of consortia, study councils and the like flow from a lack of appreciation for the structural looseness of school systems. Those considering the use of strategies based on networking ideas should not fall into the same trap.

3. Lateral Relationships and Networking Possibilities

If it is true that combining school systems is extremely expensive, and if it is also true that superintendents, principals and teachers tend to live in worlds of their own, an important question arises for NIE. Would it make sense to concentrate on improving dialogue within the major categories of school personnel? Can school problem-solving capacity be raised by improving the quality and content of colleagueship among those who staff the schools? And if that approach holds promise, what constraints operate to retard collegiality today, and what steps might be taken to loosen those constraints?

Many pages could be written about the issue of professionalization in education, particularly about the relative unconcern shown by educational personnel for constructing a shared technical culture around their daily work. I think it safe to say, however, that serious students of teaching and educational administration agree that when compared with members of better established professions, persons who work in schools have been highly dependent on universities and other external agencies for the intellectual base of their practice. Superintendents, principals and teachers have not, to any considerable extend, sought to create,

sustain and deepen a shared technical culture to inform their daily tasks. The reasons which lie behind this inactivity are complex and not altogether clear, but this does not rule out the possibility that there could be a change. In fact, there are some developments today which suggest that at least some school administrators and teachers may be readier than they have been in the past to engage in joint exploration of their work and in finding ways to improve their performance. Two examples which come to mind are the institutes developed under the aegis of the American Association of School Administrators (called the Academy of School Administration) and the proliferation of teacher centers initiated and staffed by classroom teachers.

These are not times when it is popular to advocate reliance on strategies of professionalization; we encounter widespread cynicism today about its social benefits. The route to better decision-making through increasing common knowledge is neither short nor direct, and many grow discouraged at the prospect of the years of patient effort it requires. Yet what alternatives exist, and what are <u>their</u> costs? If one believes that lack of effort is the key, one may hope that competition, as in voucher plans, will spur more effective schooling. Others, with faith in hierarchy and superordinate discipline, call for stronger management and reliance on techniques of coordination developed in business and industry. But will external prodding, either of the marketplace or the hierarchy, produce goal consensus and knowledge about means? And how can better technologies arise unless those who are deeply engaged in teaching and operating schools get involved in developing or adapting them to reality demands? It may be said of

professionalization as Churchill reportedly said of democracy that it is a terrible idea, but the alternatives are worse.

In any event, it sould be useful to explore what little is known about lateral relationships among three major categories of school personnel--superintendents, principals and teachers--to see what probably exists today and what further research might reveal. I shall examine the three serially, with general comments and suggestions for research which might tie into networking approaches.

Of the three categories considered here, superintendents are clearly the most cosmopolitan. They face both outwards and inwards, and their vulnerabilities are such that they must keep closely informed about the political realities in their communities and, as a consequence of increasing state involvement in school financing, their states. As the top official, and as someone who does not have the direct supervision of children as his responsibility, the superintendent is relatively free to travel. The superintendent normally serves as spokesman for his district, and in this capacity, is sought out by a wide variety of persons and organizations who seek his attention and support. Universities, government agencies, purveyors of books and supplies, research and development groups, spokesmen for particular subjects and particular approaches--all these seek, at some time or another, to incorporate the superintendent in their projects. There are, in short, a plethora of claims on his time and energies, and relationships with others of like employment must fit into a crowded personal agenda.

From the little research that has been done on how superintendents deploy their time, it is evident that they encounter one another under a variety of circumstances. They attend more conferences than others who work in schools, and some develop wide acquaintanceship among the ranks

of local superintendents. (New York State Regents, 1966) They attend meetings on the county, state and national levels; some are involved in study councils operated by universities and some attend regional institutes conducted by the AASA. Locally, superintendents associate with peers whose teams compete in athletic leagues, and these leagues may, as in the case of the Ivy League in colleges, symbolize other common points of reference and interest. The informal relationships among superintendents, might, if properly studied, prove to be structured in interesting ways; there may be subsets in which interaction is quite high and which provide mutual reference groups for superintendents. (For example, with what other school districts does one choose to compare salaries?)

We need research on the networks which prevail among superintendents and on the quality of their interpersonal relationships. The writer has observed some situations in which they are extremely guarded with each other, engaging in careful "facework" and avoiding any revelations about daily problems. On other occasions, particularly in informal settings, talk about board members, recalcitrant subordinates and the like are discussed and participants help one another. Do we have networks among superintendents in which trust is sufficient that technical interchange occurs about instructional and administrative practices? Do innovations get filtered through these subsets? One suspects it occurs, but I know of no studies which deal with it adequately. It seems important that such studies be undertaken.

It is likely that any networks among superintendents follow the characteristics of school districts which are used to organize formal

activities. Superintendents of very large cities band together to share their problems. Some superintendents who have graduated from high prestige universities move through high status suburban districts on a national orbit, moving from Shaker Heights to Scarsdale to New Trier, etc. Locally, there are states in which placement is controlled out of a single university; this kind of structure suggests that university ties may organize relationships in other respects as well. The map which would result from careful study of networks, I suspect, would have to take account of a variety of circles of different sizes and scope; to understand diffusion and points of common assessment, intersections of these circles should be identified.

I implied earlier that it is probably easier for superintendents to prevent rather than to implement change. There are some occupants of this role, however, who are oriented to bringing about change, despite the difficulties superintendents report in this regard. (New York State Regents, 1966) Is it possible that some of these men seek each other out for mutual support? Some are involved in raising the level of rational decision-making in administrative affairs, such as improving evaluation arrangements, undertaking local research and development or instituting effective long-range planning. Do they find support from peers who occupy positions similar to theirs? Under what circumstances do state department officials or university professors serve as important allies in such efforts? It would make sense, I believe, to undertake research on superintendents who have demonstrated commitment to major changes and to find out what resources have aided and abetted their efforts. Such knowledge could, presumably, inform NIE and others interested in furthering such efforts.

The principal seems to be the forgotten man of educational research in this country; there is so little research on the role that one major book on American schools, with chapters on everything else, does not include one on principalship. (Campbell and others, 1970) The little we know about the day-to-day reality and interactions of principals comes from dissertations, one ethnographic monograph and inadequate surveys conducted by associations of principals. Few principals have national reputations--it may be that mobility into the superintendency is such that those who would otherwise become prominent are quickly absorbed.

The principal is essentially a local, not a cosmopolitan, and his working reality is bound both by his subordination to a local school district and the incessant demands he faces in supervision of hundreds of children compressed into one place for hours on end. The picture we get from Wolcott's study, for example, is of a person responding minute-by-minute to variegated "small" problems--he is essentially the receptacle of all activity which is not covered by teachers in their classrooms. (Wolcott, 1973) It is likely, of course, that high school principals (Wolcott studied an elementary principal) can rely on a more decentralized structure, but my impression is that persons in that role also have difficulty in escaping constant demands for their personal attention. The principal, in short, is "bound-in" to a demanding, supervisory role; he is not as mobile or as likely to form outside associations as is the superintendent. Wolcott's work also suggests a likely hypothesis--since the principal's work unfolds under a set of conditions imposed by the central office, his natural colleagues are probably those who work in the same school district.

It is not unlikely that there are sub-sets of principals in large school systems who form limited colleague groups. Those who are trying to develop new types of instruction, for example, may lean on each other for support; most large school systems have at least token efforts to create different kinds of schools such as magnet schools, schools without walls, "open" schools, schools operated on the basis of greater individualization, etc. Principals from adjacent suburban or small town districts may also be aware of others undertaking such changes and link up with them for mutual advice, etc. One might have other bases for mutual contact, such as special clienteles (e.g. inner city children), special problems (e.g. highly militant parent groups) or latent identities such as race, sex, religion or ethnicity. Associations on a broader base such as county and state may bring men and women together at least occasionally; networks may develop around such interactions.

It is clear that association among principals is constrained by the nature of the role, but we need to know considerably more about circumstances which free individuals from these constraints. It may be that telephone contact among principals, for example, plays an important part in their daily decision-making; if so, which principals are in such networks and which are not? What part do administrative assistants play in freeing principals to attend conferences, etc. to engage in technical exchange? How much of the immobility of principals is directly traceable to school district rules which require that the principal be in his building during school hours?

Improvement in the quality of schooling cannot proceed far without the support and participation of those who head individual

schools. More complex forms of instruction (e.g. differentiated staffing, computer-assisted instruction) require astute administration at the school level; inventive tactics by classroom teachers require at least acceptance by, and sometimes from, principals. It is time that those engaged in research and action in school matters rectify the current lack of concern with the qualities and problems of elementary and high school principals.

Classroom teachers are the least mobile members of the school hierarchy; the organization of their tasks results in mutual isolation for the vast proportion of their working time. Teachers are bound into work schedules which require them to be in a particular place at a particular time; failure to properly supervise their charges can lead to legal sanctions and/or severe reprimand by superordinates. Most teachers continue to work alone in a bounded space, and interdependence with others is usually low; most teaching work is done by on adult with a group of students. As I pointed out in Schoolteacher, the ethos of the occupation is individualistic and places little emphasis on work or idea sharing; teachers have but the most rudimentary language with which to exchange experience in the classroom. Much remains to be learned about teacher interactions, but the weight of existing evidence is that teaching is not a cosmopolitan undertaking--the typical range of professional interactions by classroom teachers is sharply constricted.

In an earlier memo which I shall merely summarize here (see memo to Charles Johnson), I suggested that there are circumstances today which may lead some teachers to escape the idolation of the past. In some settings, the factors which have blocked colleague relationships (physical isolation, low task interdependence, an undeveloped technical culture, schedule constraints and a reward system reinforcing preoccupation

with immediate classroom concerns) are being altered. NIE could undertake or support studies to examine the effects of such alterations on interactive patterns, particularly in schools designed to foster interaction, teaming arrangements and schools where aides are available. It is also possible that networks may develop around the intensification of associational affairs connected with collective bargaining and that the emphasis on individualized instruction, as in open classrooms, may lead to a newly-felt need for more collegial interchange. There may well be enclaves, in short, in which subgroups of teachers are interacting vigorously and developing a working, shared discourse about teaching. Such enclaves would be, of course, a long way from the national networks we find in science, but they may be precursors of a higher level of collegial sharing than has been the case to date. It is at least conceivable that professionalization would arise from such interchange, or at least that such interaction could prepare teachers for a more cosmopolitan view of themselves and their work. It merits close research attention.

This necessarily rough review of superintendent, principal and teacher interactions each with the other suggests that there is a hierarchy of interaction as well as rank in schools; it is probable that the sharing of at least some elements of the work role is greater among those whose position permits greater mobility and whose rank facilitates the personal use of scarce resources. One suspects, however, that the gradient is not radical, and that more refined researches will reveal that school personnel have not as yet developed, to any great extent, the readiness or the capacity to work together to build a common technical culture. To the extent that NIE has confidence in strategies which include professionalization, it would be wise to dig

deeply into the conditions which inhibit and the conditions which encourage sharing along common occupational lines.

4. The Actualization of Informed Choice

I argued in the first section of this paper that it will not be easy to move American public schools to the kind of rational decision-making depicted in Charles Thompson's definition. Given the enormity of the task, we can think of the hoped-for transition as consisting of a series of possible steps. The question then arises: What is the strategic point for intervention?

Rational decision-making--indeed any true decision-making at all--requires several preconditions. First, those in a position to act must see their situation as involving choice; it is possible, in a traditional institution like the school, to continue past practice without any serious reflection about alternatives. Secondly, the impulse to search must encounter options if it is to be reinforced--if no one thinks of or knows about an alternative possibility, search will quickly end. Third, most persons in schools have a preference for "proven" versus theoretical possibilities; the conservatism of educators gets constant support from publics which are wary of "experimenting with children." On these grounds, it seems clear that change in decision-making behavior requires that school officials and others be able to scan the environment, find options and have some way of assessing the likely consequences of the alternatives. It is a little like Catch-22; one cannot get change until change already exists!

The creation of alternatives, however, is itself a staged process. Over the last decade or so, there has been a marked alteration in the intellectual environment of public schooling--theoretical options

have emerged for a large array of school matters. New conceptions of architecture for schools, shifts in funding sources, novel arrangements for staffing, alternative curricula for major subjects, the introduction of new learning aids such as computers and reading laboratories, the creation of new roles, efforts to realign the balance between communities and local schools--the length of the list depends essentially on one's patience. The intellectual framework around education has undergone so large a change that we can refer to a kind of "cultural crisis" in which there are few matters in schools today which are, in intellectual terms, "settled." (Lortie, 1973) This is not to say, however, that the pace of actual practice has, to any great degree, matched the theoretical possibilities, for as numerous studies have demonstrated, school districts have been slow to make genuine changes in their conduct, and much highly touted "innovation" turns out to be little more than "token" change. The pendulum has swung in its inevitable fashion so that we hear increasing statements that "none of those changes improve anything" or "it's time to get back to the basics."

There is, in short, no automatic movement from ideas about alternative practice to their implementation; critics can, after all, point to instances where innovation was undertaken for questionable motives. A serious risk in all this is that we may move into a period in which the traditions of the past lose their intellectual legitimacy while those guiding school decisions are unable to move to better practices. Such a hiatus could produce widespread anxiety and retreatism. When one adds the pessimism induced by the drop in enrolments and the subsequent reduction in public interest and support, it would be naive for us to place our confidence in any inevitable "conquest of progress."

If alternatives are to be developed, those in positions of influence must make strenuous efforts to support them and to make sure that actual instances can be examined by others with similar problems.

If potential decision-makers are to take serious account of a variety of alternatives, they must be able to get information about the relative costs and benefits of those alternatives. This requires that options be tested for sufficient time for outcomes to be visible; much innovation is so faddish today that no one really knows whether it had potential benefits or not. Given the different worlds in which different categories of school people live, they must be able to witness alternatives which connect to their concerns; one would not expect superintendents to take deep interest in a better way to teach algebra nor teachers to get excited about improvements in budget design and control. Furthermore, the Rand studies suggest very strongly that school personnel must be free to adapt alternatives as they see fit; if the cost of change is detailed compliance to governmental or foundation controls, we can probably expect seeming "obedience" rather than genuine involvement.

What implications for NIE flow from this analysis? Specifically, can we imagine a useful role for some kind of networking-as-intervention activity in helping school people to become aware of alternative solutions and to assess their local utility? I will make a few suggestions in this regard; it seems that some kind of combinational arrangements could prove worthwhile in advancing knowledge of options on several levels of school district decision-making.

The situation today is one in which no single group or agency takes responsibility for identifying and classifying the numerous options which exist in a wide variety of school board, superintendent, principal, teacher, etc. concerns. There is no central "observatory," so to speak,

which systematically scans school district activity in the search for alternative ways of solving recurrent problems.[2] It is axiomatic that in as large and decentralized an enterprise as American public schooling, some variation will be found in all sectors of school activity; it is also true, however, that in the past, the effort has been to minimize diversity in the search for the "one best way." The movement from traditionalism to rational choice, however, requires emphasis on differences, on knowing the full range of solutions to any given issue. We currently have anecdotal accounts presented in the high circulation magazines which are read by school board members and superintendents, and some serious attempts to report on alternative procedures in administration and teaching. But there is no careful, rigorous, steady activity devoted to locating the full range of solutions--whatever their origins. Government agencies, universities, foundations, publishers, etc. continually promote particular solutions to problems, but no one seeks to build a continuously-revised inventory of alternatives which could be used by potential decision-makers. It is probably true, moreover, that we continually underestimate the local inventiveness of school personnel, thinking of "innovation" or "options" as resulting only from those with specialized training or high prestige locations. If that is so, much potential knowledge is lost simply because it is not recorded for more general use.

It would rest with NIE, of course, how it would go about conceptualizing and organizing such an observatory, but it might well consider the advisability of aligning its systematic surveillance of options with the several major categories involved in school decision-making. School-district-wide matters (e.g. evaluation systems, long-range planning, budgetary procedures, etc.) might be located in one

[2]The term "observatory" I owe to Joe Lipson with whom I worked on an early task force for NIE. The conception put forward here, however, is mine and I do not know if he would agree with it or not.

unit, school-wide (e.g. staffing, scheduling, etc.) and classroom issues (alternative teaching approaches, subject specialities, etc.) in another. Each unit could be responsible for identifying major alternatives within its domain and working with groups who are developing and implementing options in school systems.

How would networking fit into such an arrangement? We could think of the major aim of networking as building an effective system of communication among persons who are interested in a particular type of solution to a recurrent problem. At the present time, NIE has engaged in scanning and identified local teacher's centers as a focus of interest; by supporting a clearinghouse for such groups, it is contributing to the stability of the undertaking and thereby keeping a viable alternative (or set of alternatives, if one thinks of centers as promoting staff development and a particular teaching approach) alive and accessible to teachers and others who are ready to consider alternatives.

Assuming an effective mechanism for scanning educational practice, NIE could develop a variable strategy in the use of combinations of persons. It might select a group of systems, for example, which are experimenting with PPBS and bring those so engaged together in conference, commissioning serious reporting of experience and assessment of future possibilities. The next stage could depend on the interest around by the first; if the movement seems to represent serious commitments (i.e. some systems will persist in the effort and be subject to assessment), they might wish to go further and support more regular contact among persons and districts with that interest and support local projects which vary somewhat in design and implementation. NIE could, in the fashion, undertake more beginnings than endings, eliminating activities which do not

seem to have considerable vigor behind them; those it chooses to support for longer periods of time, however, should be given ample time to provide exemplars to others and considerable attention should be given to widespread, detailed description and evaluation of such undertakings. On other occasions, it might give support to applicants who demonstrate that an alternative they are exploring is worth continuation and wide attention; if its inventory or observatory is effective, it should be able to evaluate such claims, identifying practices which are, in fact, both novel and promising.

There is some reason to hope that persons attempting new ways of doing things will be readier for mutual association than is generally the case in public education; moreover, NIE could facilitate interaction by using funds to offset local constraints. Many principals are probably interested, for example, in developing teacher teams within their schools, but this undertaking is enormously complex and demanding of time, energy and money. NIE could collaborate with universities or others who are interested by supporting regional or local meetings where alternative staffing plans are presented before audiences composed of principals; it could follow up with those who show interest and arrange for conferences on the mechanics of team operation, etc. and stand ready to pay for the travel and other direct expenses of participants. In some instances, funds for teacher aides could free teachers from one of their major constraints--the lack of time flexibility--and permit them to undertake serious revision of their curricular, teaching methods, etc. or to undertake promising changes such as teacher senates in which instructional matters receive sustained common attention by otherwise isolated teachers. Persons who are ready to innovate are loosening

themselves from their usual psychological anchors and evaluative guidelines; as they encounter new difficulties and possibilities, joint effort can lead to new reference groups and new criteria for assessing one's effectiveness.

It would take considerable imagination and much patient work, of course, to construct a system of such interlocking groups and to do so in a way which brings about maximum visibility to others and high potential for reproduction in other settings. But to the extent that NIE succeeded in such an effort, it would contribute directly to the creation, sustenance and development of actual alternatives at the several levels of school operation. This would be a considerable contribution to advancing rational decision-making in American public schools.

5. On the Need for Ideological Diversity

Government agencies which support scientific activity face genuine difficulties in allocating resources between groups with competing approaches; in cancer research, for example, choices must be made between the claims of immunologists, virologists, chemotherapists, surgeons, radiologists and others. Although education features its technical disputes, these may be less taxing than differences which stem from ideological commitments underlying diverse approaches to schooling. Some issues are obvious, such as desegregation, church-state relationships and equality, but in other instances, such as "open classrooms" versus "back to the basics," technical arguments may veil deep differences on how the next generation should be shaped. Can NIE get closely involved with educational practice, and foster variety in a wide range of school matters, without getting mired in such ideological disputes?

It is difficult to be sure of the answer to that question; feeling about federal intervention in local schools may still run so high that NIE may encounter opposition (perhaps muted, but nonetheless real) in seeking to increase the number of options considered by local school personnel. Nor am I willing to predict the response of Congress. But any effort to advance rationality in problem-solving will run some risks, and there is no obvious reason why they should be greater in the projected strategy than in others. Any approach must be consistent with core values in the political arena, such as the separation of powers between different levels of government and avoidance of control by government of voluntary associations.

It is important, I think, that NIE make certain that its support of alternative educational practices represents a reasonable cross-section of ideological positions. On the record, it would be able to show that it is not seeking to promote a single conception of education but is, in fact, lending support to alternatives in order to increase the significance of local choices. If the record is not clear on that count, and the pattern of support falls too heavily in any one direction, it may reasonably expect criticism and attack.

NIE's efforts can serve education by grounding the all-too-often superficial dialogue which obtains among those who advocate change and those who uphold conventional practice. Many of the labels which people attach to themselves and others in regard to educational matters are simply irrelevant--there is considerable distortion in such polarizing terms as "traditionalist" and "progressive." NIE can use the principal criterion of advancing real diversity--in practice, not in theory--to

ensure that those who receive support represent a wide spectrum of viewpoints. There is nothing which says that school systems which prefer historical forms of organization cannot improve by more careful reflection and joint deliberation; nor can we say how the "new" will have to adapt in order to persist and enrich our educational resources.

My central point, however, is that NIE should make very special efforts to identify the full range of educational practice and stand prepared to support intelligent activity by members of all schools of thought. Those who argue that teachers need more specialized training in subject matter should have their forum as do those who argue for less structure in classrooms; school districts should be as free to explore the possibilities in "teacher proof" curricula as those who favor greater autonomy for classroom teachers. I am urging this not simply out of my own pluralist convictions or the pragmatic grounds of political wisdom; on scientific grounds, we cannot currently make reasonable or empirically-grounded choices between many of these varieties of practice. The need is to encourage the development and persistence of alternative forms which get support in local communities and to report truthfully the outcomes from such divergence. Little will be learned if we proceed simply to construct a new definition, before the fact, of the "one best way."

Given the inevitable tendency of any group of persons who work together to move toward a local consensus, it would make sense to offset any such tendencies in NIE, should it amplify its assistance to networks of diverse practitioners, to seek review by a panel of citizens. Such a panel should be organized to represent a wide diversity of orientations and values in education. Although the staff should, I think, be

free to make many initial overtures and small grants on its own, I would consider it desirable for larger and more sustained undertakings to be subject to panel review.

6. Some Additional Research Suggestions

Both section 3 of this paper and my earlier memo have addressed possibilities for research. I wish to conclude this paper, however, with comments about two kinds of research which might otherwise be overlooked in discussions about networking strategies and increasing the problem-solving capacity of schools.

In proposing that NIE establish an observatory which is designed to scan options in school district practice, I am fully aware that resources for such an undertaking would always be less than optimal. Yet such an observatory could not be effective without considerable research support; it becomes important, therefore, for NIE to supplement its internal resources in research. This section puts forth two suggestions on that question, first in relation to basic description and analysis of school operations and secondly, in developing a mechanism to create a dynamic inventory of practical options.

Previous pages in this paper testify to the skimpiness of our knowledge about the day-to-day realities of American schools, particularly to the gaps in understanding about roles, structures and informal processes. Education is plagued with an over-abundance of normative and hortatory writing; for example, there are undoubtedly thousands of articles, and scores if not hundreds of books, which exhort the principal to do this or that. Yet we search in vain for any adequate description of the varieties of roles played by principals or for any sensitive depiction of the part they play in the functioning of schools; we are

forced to build our working model of reality with scraps of information. Similar statements can be made about many other aspects of school life--we know little about the subtle ways in which control is exercised in its loosely-knit structure, the flow of ideas and practices within the plethora of related organizations and agencies, the origin of agendas of problems and who defines them and the conditions which favor or inhibit cohesion among key groups of participants in the decision-making process. What circumstances lead to some school systems building arrangements for seeking alternatives to present practice? Are there instances where plans are carefully developed and routinely implemented? Do some superintendents and principals possess evaluation systems which actually guide their decisions? What permits some districts to reach beyond their professional staffs and include instructional resources from the community-at-large? One can list question after question--all germane to the capacity for problem-solving--with little fear that one's inability to answer is based on inadequate knowledge of the research literature. The work simply has not been done.

In seeking to advance more effective problem-solving in American education, NIE has a clear stake in furthering knowledge about the state of organizational life in schools. Few other foundations or government agencies have such a stake or, quite possibly, the potential resources for supporting systematic efforts to describe and analyze school districts, schools and classrooms. Some of this work is done "in-house," but considerably more could be achieved if NIE instituted a carefully developed program for such research by scholars in universities and elsewhere. A grant program could be organized which sought to fill specific gaps in our knowledge--gaps which could be aligned with increasing rationality

in decision-making. As I pointed out in the memo to Charles Thompson, a variety of methodological approaches would be relevant to such an effort, and this would serve to include a variety of researchers working together to construct a more valid picture of operating reality than we currently possess. We need surveys, tight studies of variables of known importance, case studies, ethnographic analyses, interview studies, etc. Such materials would, in addition to informing decisions by NIE and others interested in improving practice, serve a greatly needed base for the instruction of school practitioners and school researchers.

The second suggestion I offer is linked to the idea of an NIE-based observatory of options in educational practice. The task here is technically demanding--ways must be found to ensure a steady flow of specific information about practice to a central repository. At first blush, this seems to be a very expensive idea, but imagination in design could lead to a system which relied heavily on less than full-time persons. We know that school administrators and teachers already spend countless hours filling out forms of various kinds, and this would suggest that information gathering should be a specialized function. But survey research agencies and government agencies (notably the Census Bureau) have developed techniques for recruiting and holding part-time personnel to gather needed information. An NIE observatory could follow suit and develop its own original solutions; persons who work in school systems, interested parents, university students and faculty, etc. could be organised into a national cadre of observers charged with scanning their local environments and reporting on interesting developments. They could be selected from a wide range of interests--particular disciplines, specialized aspects of school operation (e.g. administration,

reading, etc.) and particular policy concerns. Training such a cadre would also have a multiplier effect as persons so involved would develop deeper interest in selecting among alternatives and/or research in education.

Whatever NIE may finally decide to do in regard to networking and other strategies for upgrading decision-making, the efficacy of its efforts will rest upon accurate perception of school realities and deep understanding of avenues of influence within school structures. A highly effective research arm is therefore the sine qua non of success in such efforts.

REFERENCES

Campbell, R. R., Cunningham, E. L., McPhee, R. F., Nystrand, R. O. The organization and control of American schools. Columbus, Ohio. Charles E. Merrill.

Cohen, M. D. and March, J. G. 1974. Leadership and ambiguity. New York. McGraw-Hill.

Cronin, J. M. 1973. The control of urban schools. New York. Free Press.

Dahlke, H. O. 1958. Values in culture and classroom. New York. Harper.

Lortie, Dan C. 1969. The balance of control and autonomy in elementary school teaching. In The Semi-Professions and their organization, ed. A. Etzioni, pp. 1-53. New York. Free Press.

Lortie, Dan C. 1973. Observations on teaching as work. In Second handbook of research on teaching, ed. R. M. Travers, Chicago. Rank McNally.

Lortie, Dan C. 1975. Schoolteacher: A sociological study. Chicago and London. University of Chicago Press.

March, J. G. and Simon, H. A. 1958. Organizations. New York. Wiley.

McDowell, H. D. 1954. The principal's role in a metropolitan school system: Its functions and variations. Ph.D. thesis, University of Chicago.

Mullins, N. C. 1973. Theories and theory groups in contemporary American sociology. New York. Harper & Row.

New York State Regents Advisory Committee on Educational Leadership. 1966. Chief school officers. New York State University.

Parsons, T. V. 1958. Some ingredients of a general theory of organization. In Administrative theory in education, ed. A. W. Halpin. Chicago, Midwest Administration Center, University of Chicago.

Summerfield, H. L. 1971. The neighborhood-based politics of education. Columbus, Ohio. Charles E. Merrill.

Thompson, J. 1967. Organizations in action. New York. McGraw Hill.

Trask, A. E. 1964. Principals, teachers and supervision: Dilemmas and solutions. Administrative Notebook 13: 1-4.

Weick, K. E. 1976. Educational organizations as loosely coupled systems. Administrative Science Quarterly. March, 1976, Vol. 21.

Wolcott, H. F. 1973. The man in the principal's office. New York. Holt, Rinehart and Winston.